



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-5392; Directorate Identifier 2016-NE-10-AD]

RIN 2120-AA64

Airworthiness Directives; International Aero Engines AG Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain International Aero Engines AG (IAE) V2500-A1 turbofan engines. This proposed AD was prompted by a report of an uncontainment caused by a high-pressure turbine (HPT) seal release. This proposed AD would require removing from service the HPT No. 4 bearing front seal seat, part numbers (P/Ns) 2A0066, 2A1998, and 2A3432, and the HPT No. 4 bearing rear seal seat, P/Ns 2A0067, 2A1999, and 2A3433, and replacement with parts eligible for installation. This proposed AD would also require inspecting the HPT rotor and stator assembly, and, if necessary, their replacement with parts that are eligible for installation. We are proposing this AD to prevent failure of the HPT stage 2 seals, uncontained HPT seal release, damage to the engine, and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06118; phone: 800-565-0140; email: help24@pw.utc.com; Internet: <http://fleetcare.pw.utc.com>. You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5392; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Brian Kierstead, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; email: brian.kierstead@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section.

Include “Docket No. FAA-2016-5392; Directorate Identifier 2016-NE-10-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

We received a report of an uncontained part release which breached an HPT case. This event resulted in an engine fire and exhaust gas temperature over-limit readings. Subsequent investigation has shown that the preliminary cause was blockage at the No. 4 bearing seal seat anti-weep grooves. Blockage of these grooves could allow oil to escape the No. 4 compartment and migrate to the HPT. Oil migration to the HPT could result in oil ignition and could eventually result in a stage 2 air-seal fracture. This condition, if not corrected, could result in failure of the HPT stage 2 seals, uncontained HPT seal release, damage to the engine, and damage to the airplane.

Related Service Information under 1 CFR part 51

We reviewed IAE Non-Modification Service Bulletin (NMSB) V2500-ENG-72-0670, dated March 14, 2016. The NMSB identifies affected engines and provides guidance for replacing the No. 4 bearing front and rear seal seats and for inspecting the HPT rotor and stator assembly. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require removing from service the HPT No. 4 bearing front seal seat, P/Ns 2A0066, 2A1998, and 2A3432, and the HPT No. 4 bearing rear seal seat, P/Ns 2A0067, 2A1999, and 2A3433, and replacement with parts eligible for installation. This proposed AD would also require inspecting the HPT rotor and stator assembly, and, if necessary, their replacement with parts that are eligible for installation.

Costs of Compliance

We estimate that this proposed AD affects 0 engines installed on airplanes of U.S. registry. We estimate that it would take about 10 hours to perform the seal seat replacement. The average labor rate is \$85 per hour. We also estimate the cost of No. 4 bearing front and rear seal seats to be \$13,562. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$0.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

International Aero Engines AG: Docket No. FAA-2016-5392; Directorate Identifier 2016-NE-10-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to International Aero Engines AG (IAE) V2500-A1 turbofan engines with serial numbers listed in Effectivity Data of IAE Non-Modification Service Bulletin (NMSB) V2500-ENG-72-0670, dated March 14, 2016.

(d) Unsafe Condition

This AD was prompted by a report of an uncontainment caused by a high-pressure turbine (HPT) seal release. We are issuing this AD to prevent failure of the HPT stage 2 seals, uncontained HPT seal release, damage to the engine, and damage to the airplane.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) Prior to accumulating 500 cycles in service after the effective date of this AD,

(i) Remove from service No. 4 bearing front seal seat part numbers (P/Ns) 2A0066, 2A1998, 2A3432; and No. 4 bearing rear seal seat, P/Ns 2A0067, 2A1999, 2A3433, and replace with parts eligible for installation.

(ii) Inspect the HPT rotor and stator assembly. Use the Accomplishment Instruction, Part C, Section 1.B of IAE NMSB V2500-ENG-72-0670, dated March 14, 2016 to perform the inspection.

(2) For any parts that fail the inspection required by paragraph (e)(1)(ii) of this AD, before further flight, remove and replace with parts eligible for installation.

(f) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

(g) Related Information

(1) For more information about this AD, contact Brian Kierstead, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; email: brian.kierstead@faa.gov.

(2) IAE NMSB V2500-ENG-72-0670, dated March 14, 2016, can be obtained from IAE, using the contact information in paragraph (g)(3) of this proposed AD.

(3) For service information identified in this proposed AD, contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06118; phone: 800-565-0140; email: help24@pw.utc.com; Internet: <http://fleetcare.pw.utc.com>.

(4) You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on April 8, 2016.

Colleen M. D'Alessandro,
Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2016-08462 Filed: 4/12/2016 8:45 am; Publication Date: 4/13/2016]